

Code: 17F00403

MCA IV Semester Regular Examinations May 2019

LINUX PROGRAMMING

(For students admitted in 2017 only)

Time: 3 hours

Max. Marks: 60

Answer all the questions

- 1 (a) Explain various process utilities available in Linux.
(b) Write a shell script that deletes all lines containing a specified word in one or more files supplied as arguments to it.

OR

- 2 (a) Write a short note on security using file permissions.
(b) Explain about text processing utilities in Linux.

- 3 (a) Explain the following system calls:
(i) Open () (ii) Seek () (iii) read ().
(b) Explain directory handling system calls.

OR

- 4 (a) Explain the support given by Kernel for files in detail.
(b) What do you mean by a hole in a file? How does the use of lseek () result in hole in a file? Explain with an example program.

- 5 (a) Explain the difference between fork () and exec () system calls.
(b) Explain in brief about reliable and unreliable signals.

OR

- 6 (a) Explain the layout of a C program image in main memory.
(b) Define orphan process. Write a program to illustrate the orphan process concept.

- 7 Explain in detail about IPC between related processes using unnamed pipes.

OR

- 8 Explain in detail about Kernel support for semaphores.

- 9 (a) Compare the IPC functionality provided by message queues with shared memory.
(b) Explain socket system calls for connectionless protocol.

OR

- 10 Explain the usage of stream sockets using client-server message handling example.
